

## CLAIMS

1. An inorganic short fiber aggregate for a holding material, which is an aggregate of inorganic short fibers, characterized in that the specific surface area is at  
5 most 10 m<sup>2</sup>/g, at least 99% (including 100%) of the number of the inorganic short fibers consists of inorganic short fibers having fiber diameters of from 1.5 to 15  $\mu$ m, and the inorganic short fibers have a chemical composition of from 74 to 86 mass% of an alumina component and from 26  
10 to 14 mass% of a silica component and a mineral composition of from 15 to 60 mass% of mullite, and have an average fiber diameter of from 2 to 8  $\mu$ m.
2. The inorganic short fiber aggregate for a holding material according to Claim 1, wherein when 50 g of the  
15 aggregate is put in a stainless steel cylindrical container having a diameter of 80 mm and a depth of 150 mm, a pressure is applied thereto from the upper side, the pressure is released when it reaches 20 MPa, and elutriation classification of the crushed inorganic short  
20 fiber aggregate is carried out, the recovered solid material such as fibers is at most 10 mass% when the flow rate of water is 0.50 l/min, at most 5 mass% when the flow rate is 1.38 l/min, and at most 1 mass% when the flow rate is 5.54 l/min.
- 25 3. The inorganic short fiber aggregate for a holding material according to Claim 1 or 2, wherein the bulk specific gravity in water as an index of the fiber

strength is from 0.012 to 0.025, as obtained from the sediment volume obtained in such a manner that 5 g of the aggregate is stirred in 400 ml of water at 1,000 rpm for 10 minutes and then put in a measuring cylinder of 500 ml, 5 water is added so that the total volume becomes 500 ml, and the liquid is left to stand for 30 minutes.

4. A process for producing the inorganic short fiber aggregate for a holding material as defined in Claim 1, 2 or 3, which comprises mixing an aluminum oxychloride 10 aqueous solution having a transmittance of at least 80%, a silica sol having a transmittance of at least 75% and a spinning aid to prepare a spinning stock solution having an alumina/silica mass ratio of from 74 to 86%/26 to 14% (total amount of both: 100%) and a viscosity of from 15 1,000 to 8,000 mPa·s, supplying the spinning stock solution to a hollow disk having a plurality of pores having a diameter of from 0.10 to 30 mm formed on the circumferential surface and discharging the spinning stock solution from the hollow disk, at from 8 to 20 20 ml/hr per one pore, while rotating the hollow disk at a circumferential speed of from 30 to 80 m/sec, to form the spinning stock solution into fibers, followed by drying, aggregation and firing.

5. The process for producing the inorganic short fiber 25 aggregate for a holding material according to Claim 4, wherein the firing is carried out by using a continuous furnace in such a manner that at the first half stage,

the fibers are heated from room temperature to 800 to 1,000°C at from 10 to 20 °C/min at a wind speed in the furnace of from 1 to 5 m/sec, and subsequently at the second half stage of the continuous furnace, the fibers  
5 are heated to the maximum temperature of from 1,200 to 1,300°C at from 20 to 30 °C/min and held at the maximum temperature for from 15 to 30 minutes.

6. A holding material consisting of a sheet-shape formed product comprising the inorganic short fiber aggregate  
10 for a holding material as defined in Claim 1, 2 or 3, and an organic binder contained in the gap of the aggregate.

7. The holding material according to Claim 6, which is a holding material for fixing a catalyst carrier of an automotive exhaust gas clarifying catalyst converter, or  
15 a holding material for fixing a honeycomb body for a diesel particulate filter.